

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P296599

Luminaire Tested: **22RLN-LD5-35-RDP-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P296599  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36060-R2)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22RLN-LD5-35-RDP-UNV-L82765-W2A1-U-3000K  
Description: RLN LED 2x2 TUNABLE WHITE TROFFER  
WITH RDP LENS  
Light Source: (252) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2710.0 lumens  
Efficiency: N/A  
Efficacy: 97.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.38 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

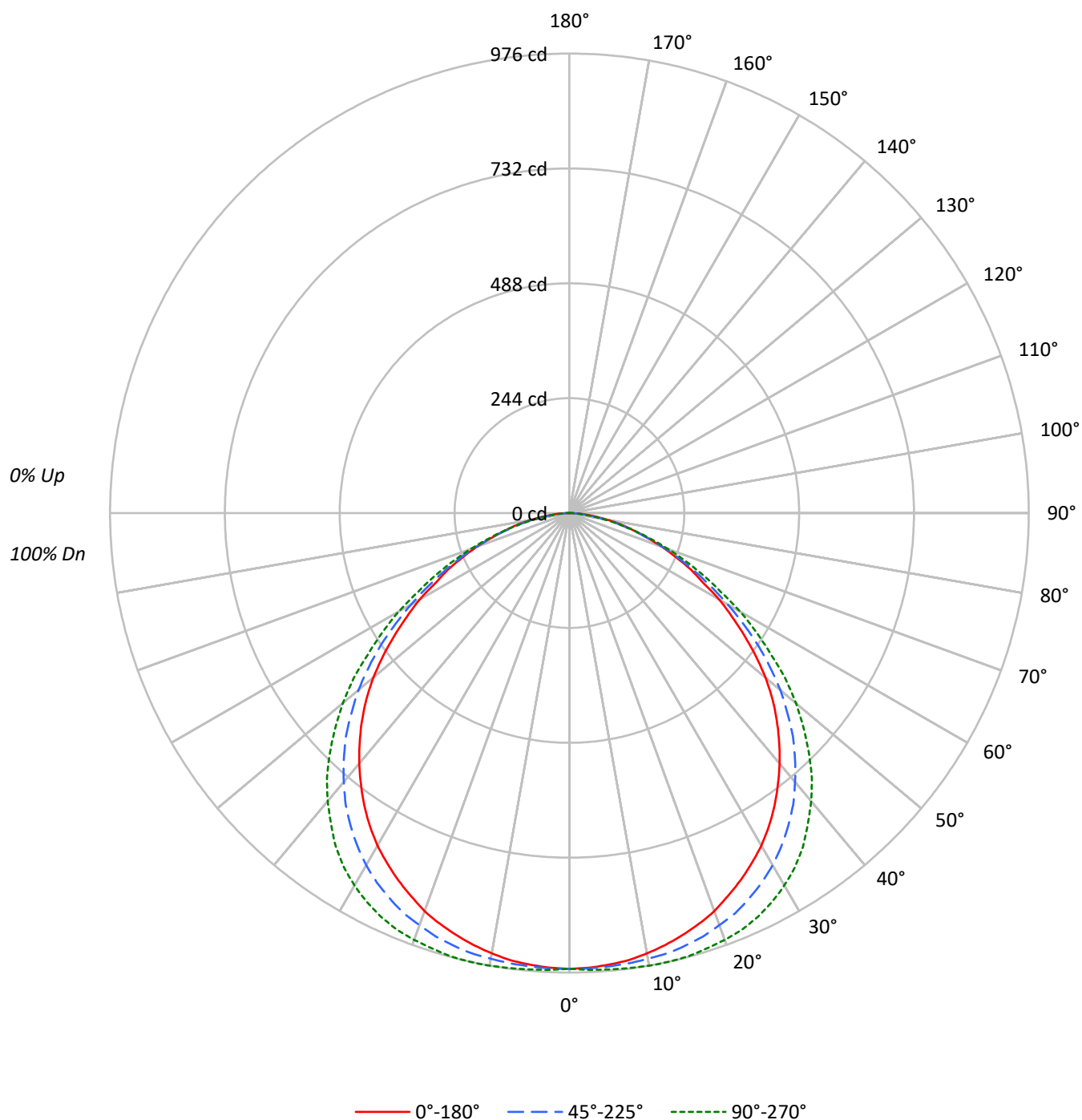
Input Watts (W): 27.714  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|-----|-----|--|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     |  | 20  |     |     |  |     | 20  |     |  |     |     | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     |  | 50  |     |     |  |     | 30  |     |  |     |     | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |
| 1   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 96  |  | 98  | 95  | 93  |  | 94  | 92  | 90  |  | 91  | 89  | 87  |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  |  | 86  | 81  | 77  |  | 83  | 79  | 75  |  | 80  | 77  | 74  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  |  | 76  | 70  | 65  |  | 74  | 68  | 64  |  | 71  | 67  | 63  |
| 4   | 84  | 72  | 63  | 57  | 81  | 71  | 63  | 56  |  | 68  | 61  | 56  |  | 66  | 60  | 55  |  | 64  | 58  | 54  |
| 5   | 77  | 64  | 56  | 49  | 75  | 63  | 55  | 49  |  | 61  | 54  | 48  |  | 59  | 53  | 48  |  | 57  | 52  | 47  |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 49  | 43  |  | 55  | 48  | 42  |  | 54  | 47  | 42  |  | 52  | 46  | 42  |
| 7   | 66  | 53  | 44  | 38  | 64  | 52  | 44  | 38  |  | 50  | 43  | 37  |  | 49  | 42  | 37  |  | 47  | 41  | 37  |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  |  | 46  | 39  | 33  |  | 45  | 38  | 33  |  | 44  | 38  | 33  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  |  | 42  | 35  | 30  |  | 41  | 35  | 30  |  | 40  | 34  | 30  |
| 10  | 54  | 41  | 33  | 28  | 52  | 40  | 33  | 27  |  | 39  | 32  | 27  |  | 38  | 32  | 27  |  | 37  | 31  | 27  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2605 | 2605 | 2605 |
| 5°  | 2601 | 2610 | 2628 |
| 10° | 2595 | 2627 | 2668 |
| 15° | 2586 | 2651 | 2715 |
| 20° | 2578 | 2668 | 2763 |
| 25° | 2554 | 2682 | 2810 |
| 30° | 2534 | 2683 | 2838 |
| 35° | 2494 | 2663 | 2843 |
| 40° | 2440 | 2620 | 2806 |
| 45° | 2372 | 2555 | 2738 |
| 50° | 2276 | 2449 | 2630 |
| 55° | 2131 | 2294 | 2449 |
| 60° | 1981 | 2088 | 2257 |
| 65° | 1815 | 1878 | 2005 |
| 70° | 1644 | 1670 | 1747 |
| 75° | 1447 | 1413 | 1465 |
| 80° | 1258 | 1156 | 1105 |
| 85° | 1025 | 769  | 664  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 92.2   | 3.4       |
| 10°-20°   | 268.8  | 9.9       |
| 20°-30°   | 416.4  | 15.4      |
| 30°-40°   | 506.8  | 18.7      |
| 40°-50°   | 516.2  | 19.0      |
| 50°-60°   | 435.3  | 16.1      |
| 60°-70°   | 294.5  | 10.9      |
| 70°-80°   | 147.2  | 5.4       |
| 80°-90°   | 32.7   | 1.2       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 777.4  | 28.7      |
| 0°-40°    | 1284.2 | 47.4      |
| 0°-60°    | 2235.7 | 82.5      |
| 0°-90°    | 2710.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2710.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 968 | 968   | 968 | 968   | 968 |      |
| 5°  | 963 | 965   | 966 | 971   | 973 | 92   |
| 15° | 928 | 935   | 951 | 968   | 975 | 262  |
| 25° | 860 | 874   | 903 | 933   | 946 | 397  |
| 35° | 759 | 776   | 811 | 849   | 865 | 475  |
| 45° | 623 | 635   | 671 | 706   | 719 | 480  |
| 55° | 454 | 461   | 489 | 512   | 522 | 406  |
| 65° | 285 | 280   | 295 | 308   | 315 | 282  |
| 75° | 139 | 134   | 136 | 138   | 141 | 149  |
| 85° | 33  | 28    | 25  | 22    | 22  | 39   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 968.0 | 968.0 | 968.0 | 968.0 | 968.0 |
| 2.5°  | 966.4 | 966.4 | 968.0 | 969.7 | 971.3 |
| 5°    | 963.0 | 964.7 | 966.4 | 971.3 | 973.0 |
| 7.5°  | 958.1 | 959.7 | 964.7 | 971.3 | 974.7 |
| 10°   | 949.8 | 953.1 | 961.4 | 971.3 | 976.3 |
| 12.5° | 939.8 | 944.8 | 958.1 | 969.7 | 976.3 |
| 15°   | 928.2 | 934.9 | 951.4 | 968.0 | 974.7 |
| 17.5° | 915.0 | 923.3 | 943.2 | 961.4 | 969.7 |
| 20°   | 900.1 | 910.0 | 931.6 | 954.8 | 964.7 |
| 22.5° | 880.2 | 893.4 | 920.0 | 946.5 | 958.1 |
| 25°   | 860.3 | 873.5 | 903.4 | 933.2 | 946.5 |
| 27.5° | 838.7 | 853.6 | 885.1 | 918.3 | 931.6 |
| 30°   | 815.5 | 828.8 | 863.6 | 898.4 | 913.3 |
| 32.5° | 789.0 | 802.3 | 838.7 | 875.2 | 891.8 |
| 35°   | 759.2 | 775.7 | 810.6 | 848.7 | 865.3 |
| 37.5° | 727.7 | 742.6 | 780.7 | 817.2 | 832.1 |
| 40°   | 694.5 | 709.4 | 745.9 | 784.0 | 798.9 |
| 42.5° | 659.7 | 674.6 | 709.4 | 745.9 | 762.5 |
| 45°   | 623.2 | 634.8 | 671.3 | 706.1 | 719.4 |
| 47.5° | 585.1 | 593.4 | 628.2 | 661.4 | 674.6 |
| 50°   | 543.7 | 552.0 | 585.1 | 615.0 | 628.2 |
| 52.5° | 498.9 | 505.6 | 537.1 | 563.6 | 578.5 |
| 55°   | 454.2 | 460.8 | 489.0 | 512.2 | 522.1 |
| 57.5° | 409.4 | 412.7 | 437.6 | 460.8 | 470.8 |
| 60°   | 368.0 | 368.0 | 387.9 | 406.1 | 419.4 |
| 62.5° | 319.9 | 324.9 | 339.8 | 358.0 | 363.0 |
| 65°   | 285.1 | 280.1 | 295.0 | 308.3 | 314.9 |
| 67.5° | 245.3 | 242.0 | 252.0 | 263.6 | 266.9 |
| 70°   | 208.9 | 203.9 | 212.2 | 218.8 | 222.1 |
| 72.5° | 170.7 | 169.1 | 172.4 | 177.4 | 179.0 |
| 75°   | 139.2 | 134.3 | 135.9 | 137.6 | 140.9 |
| 77.5° | 111.1 | 102.8 | 104.4 | 102.8 | 104.4 |
| 80°   | 81.2  | 74.6  | 74.6  | 72.9  | 71.3  |
| 82.5° | 54.7  | 51.4  | 48.1  | 44.8  | 43.1  |
| 85°   | 33.2  | 28.2  | 24.9  | 21.5  | 21.5  |
| 87.5° | 13.3  | 9.9   | 8.3   | 8.3   | 8.3   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)